LEXINGTON CHASSIS IS THOROUGHBRED

Pronounced by Automobile Experts a Notable Achievement in Engineering.

"The Thoroughbred!" That's the name enthusiastic owners have given the series "S" Lexington chassis which constitutes not only the feature of the Minute Man Six display in the automobile show but which attracted so much attention that it has become one of the distinct features of the big show.

"The Thoroughbred Chassis" is pronounced by experts to be one of the most notable achievements of automobile engineering and construction in that it meets post-war conditions almost as vital to the automobile industry as any that have developed in motor car history.

The insistent cry for cars of low operation and maintenance costs, the ever increasing use of the automobile in winter as well as in summer, for business as well as for recreation, and the growing congestion of traffic put upon the automobile manufacturer vital transportation problems that have been met to the full in the new "Lexington Thoroughbred Chassis."

To the automobile manufacturer these post-war conditions have meant reductions in car weight without sacrifice of efficiency, comfort or stability, cars of almost perfect balance to relieve wear on tires and undue strains; better carburetion and improved motors to reduce, through the medium of increased mileage, upkeep costs, built in service and simplification of chassis making for service economies and less loss of car usage.

But with all of these demanded changes, the desire for distinctive design without loss of strength or reliability has been as insistent as ever. Automobile engineers concede that "The Thoroughbred Chassis" has met these conditions in truly thoroughbred style, not even overlooking the demand for the new and distinctive in the way of design and beauty.

The Lexington exhibit at the show includes three models: the Lexington Minute Man Six touring car, the Thoroughbred, a sport model, and the new Lex-Sedan. And it also includes the "Thoroughbred Chassis," a tribute to the vision and skill of Lexington engineers.

The demand for cars of greater utility, greater economy, lighter weight without loss of strength, have been met to a surprisingly successful degree. The frame design has been not only lightened in weight, but it has been given additional strength by the simple operation of making the side rails straight, forming them in one solid unit, thereby eliminating more than 100 parts.

This simple change solves of itself the problem presented by the constantly increasing traffic, making the Lexington easy to park, easy to handle in traffic and quick to respond to the steering wheel. The wider rear end gives better body and spring support, materially reducing the tendency to side sway. In a word the new frame is stronger and more rigid than ever before and yet is considerably lighter in weight.

The running boards are flanged on the inner and outer edges for rigidity. They are bolted to the frame side rails, making them easily removable if that necessity arises, and doing away with sheet steel valances necessary in other types of frames.

In the matter of axles a common practice has been reversed. These axles of Lexington design are built and designed for this particular car and not constructed to fit a number of different cars of varying lengths of wheel base and of varying weights. The number of parts in this new axle has been reduced and parts are designed to be used in duplicate wherever possible. All unnecessary weight in these axles has been removed. It is a full ball-bearing job and first class in every respect.

Semi-elliptic springs are used front and rear, but in a combination of lengths decidedly out of the ordinary practice. The front springs are only thirty-two inches long. The rear springs are fifty-two inches long and very flexible. The principle worked out in these springs is to hinge the whole car around the front axle with only enough spring movement to cushion the road shocks at this point.

In combination with the long flexible rear springs, the car is comfortable at all speeds, reducing to the minimum any tendency to bounce and giving especially desirable results at high speeds.

The one finger emergency brake mounted on the propeller shaft at the rear of the transmission is retained because of the popularity of this improvement due to its easy operation. The transmission has been made wonderfully quiet by the use of high carbon, oil treated steel in the gears. The bearing on the main shaft has been enlarged and a roller bearing replaces the plain bushing in the pocket gear.

Throughout the "Thoroughbred Chassis" oilless bushings have been used wherever possible, almost eliminating the use of oil or grease cups.

One of the distinct new features is the Lexi-gasifier. This device, used in combination with the Moore multiple exhaust system, not only converts every last particle of the heavier parts of the fuel into power but protects the motor to a large extent from the carboning evil and guards against the diluting of the oil in the crank case.

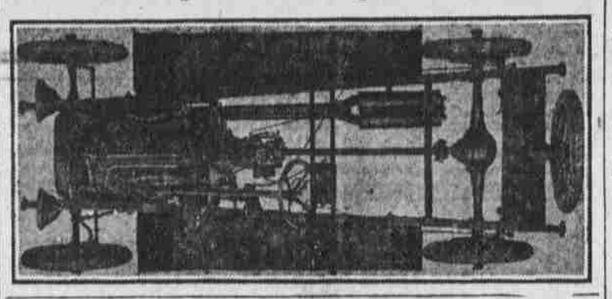
The Moore multiple exhaust system clears the cylinders of the burned gases, leaving them free for a full charge of pure gas. These devices increase the power of the engine 22.8 per cent. at maximum speeds and with greater fuel economy.

The engine has an aluminum crank case and a cylinder block with a detachable head, making valves and pistons easily accessible.

The Lexington two-way lamps constitute another distinct feature. In addition to the usual bright and dim features these lights are equipped with a movable reflector. The reflectors are operated by motor suction and are semi-automatic. This down position makes possible a clear, distinct driving light, which gives clear vision for a distance of 100 feet ahead of the car, but holds the light glare out of the eyes of the driver of an approaching car. If, in country driving, additional light is needed, a simple touch of the control on the dashboard will tilt the lights up five degrees, giving a light that at its maximum develops 70,000 candle-power. The feature of the two-way lamps is that they meet every glaring headlight law requirement of every State, including the drastic New York State law.

Another distinct feature is the service brake system. The two external brakes are operated by a flexible cable of very high tensile strength, the ends of which are attached to the levers on the drums. The centre passes around a grooved pulley attachment to the brake pedal. This provides an absolute equalizer, eliminating the need of brake adjustment, and insuring an equal pull on both brake bands, averting much of the danger of skidding and tire wear due to unequal braking. The new system also does away with rattling brake rods.

New Lexington "Thoroughbred Chassis"



JACKSON QUALITY IS GUARANTEED

Complete Coach Work Has Been Done for Thirty Years.

Bodies for all Jackson models are built complete from raw materials in the plants of the Jackson Motors Corporation, Jackson, Michigan. Likewise all painting and trimming are also done there. The result is a job built exactly to Jackson standards.

The Jackson Motors Corporation with its predecessors have been producing quality coach work for over thirty years. It is well known in the trade that only the best of materials find their way into the company's body product. For example, in the production of Jackson coach work only selected ash and maple are ever used, while many other plants under stress of scarcity of timber and high prices have substituted gum wood and elm. The factory, through its thirty years of continuous operation and experience in body building, has developed an organization of competent body men equal, if not superior, to any in the United States. This insures the recognised uniformity and excellence of product which is a byword in the trade.

Experience has nhown Jackson officials that their decision to build their own bodies complete has been a wise one. By so doing the middleman's profit is put into better materials and better workmanship. There are no long freight hauls to be added to overhead and the bugbear of deliveries is never present.

Another big advantage is that workmen are working from their own blue prints. If any operation is not quite clear the engineer can be quickly on the scene and straighten things out. When men are working to their own specifications with experts to watch every operation there is a necessity to give careful attention to such important details as glueing, screwing and watching assembly. If when the skeleton of the body is nearly finished inspectors see the need of several more screws, more supports, or anything else that will make for strength and durability, that extra work is done on the spot. Opportunity is also afforded for the most rigid of inspection before the body goes to the metal.

But the biggest and most important of all is this: If the body engineer sees an opportunity, as he did in the sport car, to make elemental changes, giving the car more pep and attractiveness, he has the knowledge and authority to do it. Naturally this could not be done where an outside factory is simply rushing out production according to a set lot of specifications.

Rough, unfinished lumber is unloaded at the Jackson docks, goes into the company's own dry kilns, and after passing through numerous processes comes out mounted as bodies on Jackson chasses, ready for delivery.

All metal for bodies is drawn and pressed in the Jackson plants. All paint is applied there and all upholstery put in by experienced workmen. All joints are acetylene welded, not soldered.

HUDSON SETS COST STANDARD.

Erratic Era of Changes Ended by Sound Policy.

"It is only a few years ago that automobile styles and designs changed as frequently as the seasons," says Harry S. Houpt.

"Six months after its purchase a car was out of date and would only command a fraction of its first cost when put on the market for resale.

"This era of periodic and radical changes was ended by Hudson engineers when they decided that such a system not only was unnecessary but that it was unfair to the motoring public. As a result Hudson cars have not undergone a single radical change since the announcement of the Super Six. Indeed there has been a refinement of detail and the steady growth toward perfection, the result of years of experience with approximately 80,000 cars in the hands of owners.

"As a result Hudsons command the highest resale values on the market, a point seldom considered, which, however, is of the greatest importance to the automobile buyer.

"In one city in Nebraska, for instance, the depreciation of a Hudson is estimated at $185 per year and these figures do not vary greatly in other sections of the country."

SOME NEW POINTS ON TRANSPORTATION

Clydesdale Official Tells of Wonderful Development of Methods and Cars.

"'Modern transportation' is such a glib phrase that no one ever stops to think what it means," said J. C. L. Krebs, general manager of the Clydesdale Motor Truck Company of Clyde, Ohio, as he watched a demonstrator explaining the working of the famous Clydesdale "Driver Under the Hood," to an interested crowd.

"Suppose we could build a clock which would record not minutes but centuries," continued Mr. Krebs. Each hour on this clock represents 20,000 years each minute three centuries and each second five years. We can say that we are living just at noon time in this span of life of the whole human race.

"For eleven hours and a half in this long human day history has recorded nothing. At twenty minutes to 12 the earliest Babylonian culture began to appear. Ten minutes later Greece began to dominate the world.

"Only three minutes ago the world made its first great step toward modern transportation when the steam engine was discovered. Five seconds ago we were turning around to watch the first automobile chug painfully down the street.

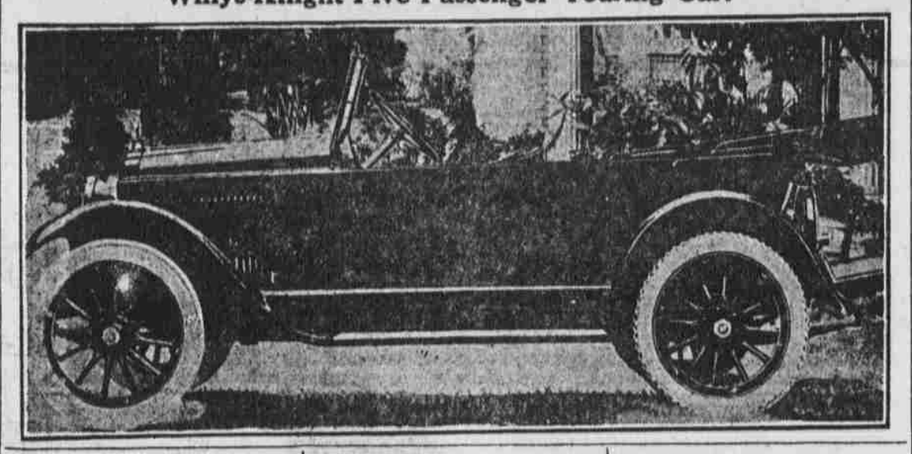
"Things which we take for granted now are so new in reality that we should still be rubbing our eyes over them, yet the human race has travelled forward so rapidly in the last thirty years that the wonder of yesterday is commonplace today."

The development of the Clydesdale Motor Truck Company has easily kept pace with this rapid forward movement of the world. Nine years ago there was no Clydesdale Company. Mr. Krebs was general superintendent of the old Elmore Truck Company. In 1912 this was bought by General Motors, and Mr. Krebs formed the Krebs Commercial Car Company, which built one ton trucks with a two cylinder motor and the Krebs automatic controller.

In those days trucks were no easy thing to sell. Automobiles, it is true, had made quite a niche for themselves, but they were looked upon as luxuries and were bought for the speed that they could produce more than anything else. They were not considered a means of transportation, but rather as an instrument of sport.

Trucks developed no speed. The horse was reliable and was backed by the traditions of centuries. No "Ship by Truck" bureaus were organized in those days. No statistics had been gathered at great expense to prove that hay and grain were a much more expensive fuel than gasolene. Yet, in spite of all this, Mr. Krebs found no great difficulty in selling all the trucks that his factory was able to turn out.

Willys-Knight Five Passenger Touring Car.



FLEXIBLE CHASSIS EASES CAR.

Holmes Company Shows What Non-Rigid Construction Means.

"Flexibility in the chassis of a motor car is a great aid to ease of riding," says Arthur Holmes, president of the Holmes Automobile Company, manufacturers of the Holmes Improved Air-Cooled Car.

"In the construction of the Holmes chassis we have purposely eliminated all rigid cross members to obtain a frame that weaves with the irregularities in the road surfaces. When the car is being driven over rough roads the wheels accommodate themselves to the inequalities in running surface.

"The result may be compared to the ease of riding on a horse that is trained to single foot rather than to canter or gallop.

"In so far as the term single footing can be applied to the riding of a motor car this is the result obtained in driving a Holmes car. Each wheel is able to find its own footing. Were the frame rigid the jumping of any one wheel would be communicated to the others with the result that the occupants of the car would be jolted about.

"It is the experience of men who drive the Holmes that they soon come to drive it like a motorcycle. They merely watch one wheel and keep it on the smoothest part of the road."

NASH FOUR RIVALS THE SIX.

So satisfactorily has the new Nash Four been developed that those in a position to know declare it will equal the record of the Nash Six for unusually satisfactory service in the hands of owners.

Battery Lifted From Motor Car Enables Government Aviator to Continue Flight

A FLEET of motor cars was proceeding spiritedly along the road from Detroit to Indianapolis not long ago when the attention of the leader was arrested by the sight of an airplane in a nearby field. The fleet stopped and the drivers found, as they had surmised, that the big "ship" was in distress.

"Guess I'm stuck," said the pilot; "battery given out. Telephoned to Bowling Green, but I don't know——"

W. H. Powell stepped up and interrupted him. W. H. Powell is in charge of a squad of men making regular trips back and forth between Detroit and Indianapolis, driving Dodge Brothers motor cars from the factory to E. W. Steinhart Company's salesrooms. It was he who first sighted the plane in the field.

"I see you're in the Government mail service," he said, "and I suppose you're in a hurry to be getting on. Well, I think we can fix you up. Just a second."

And it was a little more than that before Powell came running back with a battery which he had "lifted" from one of the cars he left standing by the roadside.

"Let's see, you need eight volts. That's easy, we'll just hook up four cells on this battery," Powell remarked, and without so much as a pause proceeded to do the installing and hooking up himself. It was all finished in a minute.

The astonished aviator looked at Powell.

"Climb in," said Powell. "I'll handle the propeller."

The motorist seized a blade, gave a sharp twist and leaped gracefully back out of the roaring swath it cut through the air as the engine set up it familiar hum.

"Where you bound, Chicago?" Powell called to the pilot as he put one foot on the fuselage.

"Yes, coming right back," the pilot answered, "get in. I'll get a new battery over there."

Powell was already aboard and in a moment the big plane was sailing westward through the clouds.

Five hours later, headed eastward, the plane swooped down over the same Ohio field.

"It was mighty lucky I ran across you," the pilot was saying as he clasped Powell's hand.

"No trick at all," remarked Powell as he readjusted the battery in his Dodge Brothers sedan and slipped the floorboard back in place. "But if I hadn't been testing ships for the Curtis people during the war it might have taken a little longer to figure it out."

Five minutes later a big airplane circled down over the white highway on which a fleet of Dodge Brothers motor cars were skimming westward. The pilot was seen to lean slightly to one side and wave, as if in farewell to the motorists. Then he shot swiftly up and eastward and out of sight.

Franklin Established as America's Greatest Road Car by Succession of Cross Country Runs.

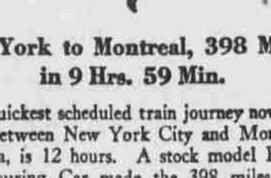
The FRANKLIN CAR

New York to Montreal, 398 Miles, in 9 Hrs. 59 Min.

The quickest scheduled train journey now possible between New York City and Montreal, Canada, is 12 hours. A stock model Franklin Touring Car made the 398 miles in 9 hours 59 minutes running time on November 11th, setting a new touring record and equaling from New York to Albany the non-stop time of the Wolverine Express, 3 hours 20 minutes. Five hours of the trip were through rain, slush, snow, ice, and a gale that at times blew fifty miles an hour.

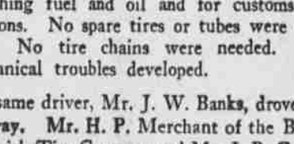
The return trip (401 miles) was made in 11 hours 28 minutes running time. The total elapsed time for the round trip was 24 hours 10 minutes, including time out for eating, replenishing fuel and oil and for customs inspections. No spare tires or tubes were carried. No tire chains were needed. No mechanical troubles developed.

The same driver, Mr. J. W. Banks, drove all the way. Mr. H. P. Merchant of the B. F. Goodrich Tire Company and Mr. J. R. Getty, of "Motor," were observers; Mr. L. A. Miller, passenger.



New York-Boston Round Trip, 458.8 Miles, in 12 Hrs. 5 Min.

On September 29th Mr. Banks drove a Franklin Touring Car from New York to Boston and back in 12 hours and 5 minutes, establishing what was then a road touring record of 458.8 miles at 38 miles an hour. He drove entirely at night without relief. No spare tires were carried, there were no tire accidents and the fuel average was 18 miles to the gallon of gasoline.



This year's Yosemite Run was won by Stanley S. Turner of Los Angeles in the Franklin Car. The Franklin took all three first prizes.

MT. WASHINGTON

P. E. Frost, of Portland, Me., included the climbing of Mt. Washington without a stop as part of a non-stop low gear run of 98.2 miles. Climbing the mountain without a halt is alone a record.

Every little while a Franklin Car in some section of the country sets a new road record or makes a clean sweep of an economy or reliability event. Recently Franklin drivers have made numerous 24-hour runs and long distance trips which prove that the Franklin Car is unsurpassed at piling up large mileage in a day's driving—over average highways or over all dirt roads. Here are the records—

865.4 miles in 24 hours—R. H. Cramer, Waterloo, Ia.
832.6 miles in 24 hours—Will Diddel, Indianapolis, Ind.
808.9 miles in 24 hours—P. A. Pfohl, Indianapolis, Ind.
746.1 miles in 24 hours—J. H. Manion, Indianapolis, Ind.
729.5 miles in 24 hours—J. T. Peacha, Duluth, Minn.
725.2 miles in 24 hours—L. W. Snotin, Indianapolis, Ind.
693 miles in 24 hours—Mrs. R. G. Reed, Boston, Mass.
406.3 miles in 12 hours in a Brougham—Mrs. O. C. Belt, Columbus, Ohio.
New York to Montreal, 9 hours 59 minutes—J. W. Banks, Newark, N. J.
Round trip between New York and Boston, 12 hours and 5 minutes.
New York to Albany, 3 hours 30 minutes.
Cincinnati to Cleveland and back in 15 hours and 45 minutes.

Making time in a Franklin does not consist of spurts of 60 to 70 miles an hour over every straight stretch of good road, alternating with long stretches of annoying slowness over roads not so favorable.

The secret of the Franklin Car's ability to make faster average time over long distances than any other car is simply that the power of the Franklin Car is not handicapped by heavy weight or rigidity and their attendant dangers, driving strain and discomfort. The light weight and flexibly built Franklin holds the roads at all speeds, hugs the turns, smooths out the rough stretches and is practically never held up by tire accidents.

Waterloo

865.4 Miles in 24 hours

A new 24-hour dirt road record was set when Ralph H. Cramer, of Waterloo, Ia., recently drove a Franklin stock car 865.4 miles in the actual driving time of 23 hours and 4 minutes. He drove the entire distance himself over ordinary dirt roads without a second's relief, beating the former record of J. T. Peacha, of Duluth, who covered 729.5 miles in a Franklin.

DETAILS OF THE RECORD

Total Running Time	23 hours 4 min.
Total Time for Fuel, Chains, Top up, etc.	56 minutes
Total Time Consumed	24 hours 0 min.
Total Mileage on Dry Roads	757 miles
Total Mileage on Mud Roads	108.4 miles
Total Miles Run	865.4 miles
Miles Per Hour Average Dry Roads	38 9 miles
Miles Per Hour Average Mud Roads	25.7 miles
Grand Total Average Per Hour	37.5 miles

The engine was stopped but once. No mechanical adjustments were made. No tire trouble. Driver: Ralph H. Cramer; Observers, W. A. Ridder; D. J. O'Neil, Waterloo Times Tribune; M. V. Briggs; R. S. McComb.

Cincinnati to Cleveland and Back, Twice Across Ohio, in 15 Hrs. 45 min.

A motoring sensation was created in the state of Ohio when Cliff Leuders, without stopping the engine of his Franklin Touring Car, reduced the touring time from Cincinnati to Cleveland and back. He covered the 553 miles in 15 hours and 45 minutes of actual running. The odds were 4 to 1 that the previously announced time of 17 hours could not be made.

Covering this route at any speed is thought by Ohio motorists to be a severe test of any motor vehicle, so bad are the roads. Yet the Franklin averaged over 35 miles an hour. Rain which froze on the riders and turned into a blinding snowstorm added to the difficulties.

Observers, Mr. Robert Beiser, Automobile Editor, Cincinnati Enquirer; Mr. Richard Powell.

Boston to Syracuse and Back, Driven by Woman in 24 Hours' Time

A new mark for women drivers was set when Mrs. Ralph G. Reed recently drove 693 miles in 24 hours and 20 minutes elapsed time. The route lay between Boston and Syracuse and return and required twice passing through the congested traffic districts of those cities. Mrs. Reed believes that a heavy storm through which she had to drive for a hundred miles prevented her making even better time.

Reels Off 832.6 Miles in a Day

W. H. Diddel, of Indianapolis, a non-professional driver, recently established a record for his section of the country for a 24-hour road run by covering 832.6 miles of road in 22½ hours' actual running time. The trip was made in a stock model Franklin Touring Car, without ballast, shock absorbers, or any change from regular equipment. Mr. Diddel was accompanied by two official observers, but drove all the way himself.

No mechanical adjustments of any nature were necessary during the trip. And the mileage of the *last* twelve hours was as big as that of the *first* twelve hours, indicating that the driver felt little or none of the fatigue ordinarily to be expected.

Two other Indianapolis motorists, likewise driving Franklins, also exceeded the former distance record. That, too, had been established by a Franklin Car.

FRANKLIN MOTOR CAR CO. *of* NEW YORK

GLENN A. TISDALE, President

1830 Broadway, New York
Telephone Columbus 7556

1416 Bedford Ave., Brooklyn
Telephone Prospect 4354